

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of : N. Osterrieder et al.) Art Unit: 1648
U.S. Appln. No. : To be assigned) Examiner: S. A. Foley
Confirmation No. : To be assigned
U.S. Filing Date : February 5, 2004
Title of Invention : Artificial Chromosomes Comprising EHV Sequences
Attny. Docket No.: 1/1199-1-C1

Mail Stop Patent Application
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

February 5, 2004

TRANSMITTAL LETTER FOR INFORMATION DISCLOSURE STATEMENT

Sir:

Transmitted herewith concerning the subject application is an Information Disclosure Statement (Form 1449A/B) under 37 C.F.R. §§1.56 and 1.97, as more specifically described hereinbelow.

1.97(b). This Statement is being filed: i) within three (3) months of the filing date of a national application other than a continued prosecution application under 33 C.F.R. §1.53 (d); ii) within three (3) months of the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application; iii) before the mailing of a first Office action on the merits; or iv) before the mailing of a first Office action after the filing of a request for continued examination under 37 C.F.R. §1.114.

1.97(c). This Statement is being filed after the time period specified in 37 C.F.R. §1.97(b), but before the mailing date of: i) a final action under 37 C.F.R. §1.113, ii) a notice of allowance under 37 C.F.R. §1.311, or iii) an action that otherwise closes prosecution in the application. This Statement is being accompanied by:

- A statement as specified in 37 C.F.R. §1.97(e) [see below]; or
- The fee set forth in 37 C.F.R. §1.17(p).

The Commissioner is hereby authorized to charge payment of the \$180.00 fee set forth in 37 C.F.R. §1.17(p) to Deposit Account No. 02-2955.

1.97(d). This Statement is being filed after the period specified in 37 C.F.R. §1.97(c) but on or before payment of the issue fee. This Statement is accompanied by a statement as specified in 37 C.F.R. §1.97(e) [see below] and the fee set forth in 37 C.F.R. §1.17(p).

1.97(e).

Each item of information contained in the instant information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to the filing of the instant information disclosure statement; or

No item of information contained in the instant information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in the instant information disclosure statement was known to any individual designated in 37 C.F.R. §1.56(c) more than three (3) months prior to the filing of the instant information disclosure statement.

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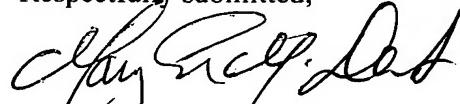
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Respectfully submitted,



Mary-Ellen M. Devlin
Attorney for Applicant(s)
Reg. No. 27,928

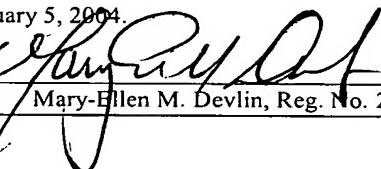
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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary).

Sheet 1 of 4

<i>Complete if Known</i>	
Application Number	To be assigned
Filing Date	February 5, 2004
First Named Inventor	N. Osterrieder et al.
Art Unit	1648
Examiner Name	S.A. Foley
Attorney Docket Number	1/1199-1-C1

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

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Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁸
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				<i>Application Number</i>	To be assigned
				<i>Filing Date</i>	February 5, 2004
				<i>First Named Inventor</i>	N. Osterrieder et al.
				<i>Art Unit</i>	1648
				<i>Examiner Name</i>	S.A. Foley
Sheet	2	of	4	Attorney Docket Number	1/1199-1-C1

NON PATENT LITERATURE DOCUMENTS					
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		D. SCHUMACHER ET AL: "Reconstitution of Marek's Disease Virus Serotype 1 (MDV-1) from DNA Cloned as a Bacterial Artificial Chromosome and Characterization of a Glycoprotein B-Negative MDV-1 Mutant" JOURNAL OF VIROLOGY, THE AMERICAN SOCIETY FOR MICROBIOLOGY, US, vol. 74, no. 23, December 2000, pages 11088-11098.			
		M. MESSERLE ET AL: "Cloning and mutagenesis of a herpesvirus genome as an infectious bacterial artificial chromosome" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE, WASHINGTON, US, vol. 94, no. 26, 1 December 1997, pages 14759-14763.			
		J. RUDOLPH ET AL: "Cloning of the Genomes of Equine Herpesvirus Type 1 (EHV-1) Strains Kya and RaCl11 as Bacterial Artificial Chromosomes (BAC)." JOURNAL OF VETERINARY MEDICINE SERIES B, vol. 49, no. 1, February 2002, pages 31-36.			
		J. Rudolph and N. Osterrieder: "Equine herpesvirustype 1 devoid of gM and gp2 is severelyimpaired in virus Egress but Not Direct Cell-to-Cell Spread." VIROLOGY, vol. 293, no. 2, 15 February 2002 (2002-02-15), pages 356-367.			
		W. BRUNE ET AL: "Forward with BACs - new tools for herpesvirus genomics" TRENDS IN GENETICS, ELSEVIER, AMSTERDAM, NL, vol. 16, no. 6, June 2000 (2000-06), pages 254-259.			
		ALISTAIR McGREGOR ET AL: "Recent Advances in Herpesvirus Genetics Using Bacterial Artificial Chromosomes." MOLECULAR GENETICS AND METABOLISM, vol. 72, no. 1, January 2001 (2001-01), pages 8-14.			
		GRANOFF A, WEBSTER R G (eds): "Encyclopedia of Virology" 1999, ACADEMIC PRESS, HARCOURT BRACE, SAN DIEGO, CA, USA XP001121578; O'Callaghan, D. J., and Osterrieder, N.: "Equine Herpesviruses (hERPESVIRIDAE)" page 508- page 515.			
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		D. R. FITZPATRICK and M. J. STUDDERT: "Immunologic Relationships Between Equine Herpesvirus Type 1 (Equine Abortion Virus) and type 4 (Equine Rhinoneumonitis Virus): AMERICAN JOURNAL OF VETERINARY RESEARCH, vol. 45, no. 10, 1 October 1984 (1984-10-01), pages. 1947-1952.			
		P.H. HUEBERT ET AL: "Alterations in the equine herpesvirus type-1 (EHV-1) strain RacH during attenuation." ZENTRALBLATT FUR VETERINARMEDIZIN. REIHE B. JOURNAL OF VETERINARY MEDICINE. SERIES B. GERMANY March 1996, vol. 43, no. 1, pages 1-14.			

Examiner Signature		Date Considered
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Substitute for form 1449B/PTO				<i>Complete if Known</i>	
				<i>Application Number</i>	To be assigned
				<i>Filing Date</i>	February 5, 2004
				<i>First Named Inventor</i>	N. Osterrieder et al.
				<i>Art Unit</i>	1648
				<i>Examiner Name</i>	S.A. Foley
Sheet	3	of	4	<i>Attorney Docket Number</i>	1/1199-1-C1

NON PATENT LITERATURE DOCUMENTS					
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		Neubauer et al. "Equine herpesvirus 1 mutants devoid of glycoprotein B or M are apathogenic for mice but induce protection against challenge infection." VIROLOGY, 1997; 239: 36-45			
		T. MATSUMURA ET AL: "Lack of virulence of the murine fibroblast adapted strain, Kentucky a (KyA), of equine herpesvirus type 1 (EHV-1) in young horses" VETERINARY MICROBIOLOGY, AMSTERDAM, NL, vol. 48, no. 3-4, 1996, pages 353-365.			
		A. NEUBAUER ET AL: "Analysis of the Contributions of the Equine Herpesvirus 1 Glycoprotein gB Homolog to Virus Entry and Direct Cell-to-Cell Spread." VIROLOGY. UNITED STATES 20 JAN 1997, vol. 227, no 2, pages 281-294.			
		A. NEUBAUER ET AL: "Die Mutationen im US2- und Glykoprotein B-Gen des Equinen Herpesvirus 1-Impfstammes Rach haben keinen Einfluss auf seine Attenuierung" "Mutations within the US2 and Glycoprotein B genes of the Equine Herpesvirus 1 Vaccine Strain Rach Do not Account for Its Attenuation" Berliner und Muenchener Tierarztliche Wochenschrift, Paul Parey, Berlin, De, vol. 112, no. 9, September 1999, pages 351-354.			
		N. OSTERRIEDER: "Construction and characterization of an equine herpesvirus 1 glycoprotein C negative mutant." VIRUS RESEARCH, NETHERLANDS, FEBRUARY 1999, vol. 59, no. 2, pages 165-177			
		H. CSELLNER ET AL: "EHV-1 glycoprotein D (EHV-1gD) is required for virus entry and cell-cell fusion, and an EHV-1 gD deletion mutant induces a protective immune response in mice." ARCHIVES OF VIROLOGY, vol. 145, no. 11, 2000, pages 2371-2385.			
		T. MATSUMURA ET AL: "An Equine Herpesvirus Type 1 Recombinant with a Deletion in the gE and gI Genes is Avirulent in Young Horses." VIROLOGY. UNITED STATES 1 MAR 1998, vol. 242, no. 1, 1 March 1998 (1998-03-01), pages 68-79.			
		H. E. FARRELL ET AL: "Vaccine Potential of a Herpes Simplex Virus Type 1 Mutant with an Essential Glycoprotein Deleted" JOURNAL OF VIROLOGY, THE AMERICAN SOCIETY FOR MICROBIOLOGY, US, vol. 68, no. 2, 1 February 1994 (1994-02-01), pages 927-932.			
		L. HUTCHINSON ET AL: "Herpes Simplex Virus Glycoprotein K Promotes Egress of Virus Particles." JOURNAL OF VIROLOGY. UNITED STATES SEP 1995, vol. 69, no. 9, September 1995 (1995-09), pages 5401-5413.			
		'RECOMBINANT HERPESVIRUSES LACKING GENE FOR GLYCOPROTEIN L' RESEARCH DISCLOSURE, KENETH MASON PUBLICATIONS, EMSWORTH, GB, no. 371, 1 March 1995 (1995-03-01), pages 129-130.			

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		A. NEUBAUER ET AL: "Equine Herpesvirus 1 Mutants Devoid of Glycoprotein B or M are Apathogenic for Mice by Induce Protection against Challenge Infection" VIROLOGY, ACADEMIC PRESS, ORLANDO, US, vol. 239, no. 1, 8 December 1997 (1997-12-08), pages 36-45.			
		N. OSTERRIEDER ET AL: "Deletion of genE 52 encoding glycoprotein M or equine herpesvirus type 1 strain Rach results in increased immunogenicity." VETERINARY MICROBIOLOGY, vol. 81, no. 3, 8 August 2001 (2001-08-08), pages 219-226.			
		K. R. MARSHALL ET AL: "An Equine Herpesvirus-1 Gene 71 Deletant is Attenuated and Elicits a Protective Immune Response in Mice." VIROLOGY, ACADEMIC PRESS, ORLANDO, US, vol. 231, no. 1, 1997, pages 20-27			
		YI SUN ET AL: "The role of the gene 71 product in the life cycle of equine herpesvirus 1" JOURNAL OF GENERAL VIROLOGY, SOCIETY FOR GENERAL MICROBIOLOGY, READING, GB, vol. 77, no. 3, 1 March 1996 (1996-03-01) pages 493-500.			
		M. SUTER ET AL: "BAC-VAC, a novel generation of (DNA) vaccines: A bacterial artificial chromosome (BAC) containing a replication-competent, packaging-defective virus genome induces protective immunity against herpes simplex virus 1." PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE, WASHINGTON, US, vol. 96, no. 22, 26 October 1999, pages 12697-12702			
		E. A. R. TELFORD ET AL: "The DNA Sequence of Equine Herpesvirus-1." VIROLOGY, ACADEMIC PRESS, ORLANDO, US, vol. 189, no. 1, 1992, pages 304-316.			
		A. MAYR ET AL: "Untersuchungen zur Entwicklung eines Lebendimpfstoffes gegen die Rhinopneumonitis (Stutenabort) der Pferde" JOURNAL OF VETERINARY MEDICINE, SERIES B- ZENTRALBLATT FUER VETERINAERMEDIZIN, REINE B. PAUL PAREY, BERLIN, DE, vol. 15, 1968, pages 406-418.			
		Translation of A. MAYR et al. "Investigations towards the Development of a Live Vaccine against Equine Rhinopneumonitis-1" 1968, pp. 406-418			

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